6 0 Jm 13 3-27

0.00

0.00

QC2- Inspect parts off machine FAI/FAIB

Memo

110

QC

110

Quality Control

NCR: Y	es / No		1		WORK ORDER NON-	CONFO	RN	MANCE / UPD	DATE					
										QA Closed:	. Dat	e:		
Work Orde	r:				DISPOSITION				AGAINST DE	PARTMENT	/PROCESS			
Part N	0.				Rework Scrap		Skid-tube Crosstube Machining Small Fab				Water Jet d. Eng. Coor.		ality	
NCR N	0							e/Packaging Supplier	—	ther				
Root				Descri	ption of work order update	Initia		Acti	ion	Sign &				
Cause	Date	Step	Qty		or Non-conformance	Chief E	ng	Descri	iption	Date	Verification	n QC In	spector	
Doc/Data											1			
quip/Tooling														
Operator											1			
Material							ĺ							
Setup		1				1								
Other											i			
Process											i ·			
Supplier														
Fraining											,			
Unapproved		L	<u> </u>			1					·			
					· · · · · · · · · · · · · · · · · · ·	AULT CA	TEC	GORY			i			
Landin	g Gear			_	General		_			1				
-	Bending		Ì	<u> </u>	Bend	Grai				Ovalized		Pressure/		
-	Centre No	ot Concer	ntric to	O/S _	BOM/Route	Hard				Over/Under		Temperat	ure/Cure	
-	Cracks			<u> </u>	Broken/Damaged	—		on Incomplete		Part Incorre	1	Weld		
1	Crushed/	Crimped.	1	ļ	Burrs	 		ions Incomplete/U	Inclear	Part Lost/Mi	ssing	Wrong Sto	ock Pulled	
	Cuffs			<u> </u>	Contamination	-		nance	<u> </u>	Part Moved				
	Heat Trea				Countersink	Misl				Positioned V				
	Inspection	-	Tube	<u> </u>	Cut Too Short	Misr		i		Power Loss/	Surge	Other		
	Ripples in			<u> </u>	Drill Holes	Offs			•	~~~				
	Torque W			n	Drawing	\vdash		Calibration			<u> </u>			
L	Turning S	equence	1		Finish	Out	Out of Sequence							

Outside Dimensions

Date:

DQA:

Wave/Twist in Tube

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde February-21-13				*976	382*						Page 2
Item ID: Revision ID: Item Name:	D3016-13 Bracket			Accept	*N9000	74010	ി 0*	Setup	Start Stop	*N.9	
Start Date: Required Date: Reference:	2/21/13 3/08/13	Start Qty: 6.00 Req'd Qty: 6.00	*6* *6*		Cust Item II Customer:) :			G		
Approvals:		an:		Tooling: SPC (Y/N):		te:		Run	Start Stop	*NF	₹1* ₹2*
Sequence ID/ Work Center II 120 *170* QC Quality Control	D	Operation Description QC8- Inspect parts - sec	ond check	Set Up/ Run Hours 0.00 Sy 0.00 /3, 3		Tool # Pla	an Acce ode Qty	ept Re Qt		Reject Number	Insp. Stamp
130 *130* Brake NC Brake NC		NC BRAKE Memo Form D30	016-13 as per Dwg D3016	0.00				4			13/04
140 *140* QC		QC5- Inspect part comp	oleteness to step on W/O	0.00	• •		6				· ·

Quality Control

NCR: Y	es / No				WORK ORDER NON-	CONFO	RMANCE / UF	PDATE	QA Closed:	Date:	
Work Orde	er:				DISPOSITION		Skid-tube	AGAINST D	EPARTMENT	/PROCESS	Engineering
Part No. Scrap Machining Use-as-is Thermoforming						Small Fab Finishing		d. Eng. Coor. re/Packaging	Quality		
NÇR No. Work Order Update						1	Large Fab	Composite]	Supplier	
Root				Descri	ption of work order update	Initia	I A	ction	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief E	ng Des	cription	Date	Verification	QC Inspector
Doc/Data									}	,	
Equip/Tooling				ļ.			ļ			, `	
Operator										:	
Material										!	
Setup	_									,	
Other											
Process							ì				
Supplier											
Training	_										
Unapproved		<u> </u>		<u> </u>		<u> </u>	· ·				
						AULT CA	TEGORY			1	
Landir r	ng Gear			_	General	 1		۲	–	, L	7
ļ	Bending				Bend	Grai		-	Ovalized		Pressure/Forced
	Centre No	ot Concer	ntric to	o/s	BOM/Route	⊢ ⊣	lware	-	Over/Under		Temperature/Cure
	Cracks				Broken/Damaged	⊢ •	ection Incomplete	_	Part Incorre	. –	Weld
	Crushed/	Crimped.			Burrs	\vdash	uctions Incomplete	/Unclear	Part Lost/M	<u></u>	Wrong Stock Pulled
	Cuffs			<u> </u>	Contamination	\vdash	ntenance	ļ_	Part Moved	i	
1	Heat Trea		İ	<u> </u>	Countersink		abeled	<u> </u>	Positioned \		٦.
,	Inspection		Tube	<u> </u>	Cut Too Short	Misr		L	Power Loss,	/Surge	Other
ļ	Ripples in			<u> </u>	Drill Holes	Offs					
	Torque M	laves in E	vtrucio	n I	Drawing	1 100+	of Calibration			1	

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Ord February-21-13				*976	382*							Page
Item ID: Revision ID: Item Name:	D3016-13 Bracket			Accept	*N900	040	100)*	Setup	Start Stop		S1*
Start Date: Required Date: Reference:	2/21/13 : 3/08/13	Start Qty: 6.00 Req'd Qty: 6.00	*6* *6*		Cust Item II Customer:	D:						
Approvals:	Process Pl	an:	Date:	Tooling: SPC (Y/N):		ite:			Run	Start		R1* R2*
Sequence ID/ Work Center I	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp
*150 *150* Packaging		Packaging Memo		0.00				6		A	13-4	-3
Packaging		Identify and FAB***** Location:	1/.	a oil #2), then *****STOC	CK IN LARGE							

0.00

0.00

QC21- Final Inspection - Work Order Release

Memo

160

160

Quality Control

N 13-044

				j					DQA:	Date:	
NCR:	Yes	/ No		}	WORK ORDER NON-	CONFOR	RMANCE / U		QA Closed:	Date:	•
				_							
Work Ord	er.				DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
I TOTAL	··· —		*		Rework	7 H	Skid-tube	Crosstube		Water Jet 🗌	Engineering
Part I	Part No.			ĺ	Scrap	1			Pro	d. Eng. Coor.	Quality
				+-	Use-as-is					re/Packaging	Other
NCR I	No.				Work Order Update	1	Large Fab	Composite		Supplier	
Root					Description of work order update	Initial	Д	ction	Sign &		
Cause		Date	Step	Qty	or Non-conformance	Chief En	g Des	scription	Date	Verification	QC Inspector
Doc/Data		:									
Equip/Tooling								,			
Operator		:				İ					
Material										,	
Setup						}					
Other	Ш			-						1	
Process	Ш										
Supplier	Ш		į ·								
Training	Ш									;	
Unapproved				<u> </u>						L	
						AULT CAT	EGORY				
Landi	ing Ge	ear		İ	General					:	

Grain

Hardware

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Inspection Incomplete

Instructions Incomplete/Unclear

Pressure/Forced

Weld

Other

Temperature/Cure

Wrong Stock Pulled

Ovalized

Part Incorrect

Part Moved
Positioned Wrong

Part Lost/Missing

Power Loss/Surge

Over/Under tolerance

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Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Bending

Cracks

Cuffs

Heat Treat

Crushed/Crimped.

Inspection Strip in Tube

Torque Waves in Extrusion

Centre Not Concentric to O/S

Bend

Burrs

BOM/Route

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish Folio

Broken/Damaged

Picklist Print

February-21-13 12:40:13 PM

Work Order ID:

97682

Parent Item:

D3016-13

Parent Item Name:

Bracket

Start Date: 2/21/13

Required Date: 3/08/13

Start Qty: 6.00

Required Qty: 6.00

Comments:

IPP B03.05.09ReformatKJ/RF

IPP Rev:C Now On Wateriet 07-10-23 JLM Verified BY: EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M4130NS.049 1130 Sheet .049		Purchased	No			100	sf	130.8903	0.243	1.534737 			Tm13-3-2
				Location		Loc Qty	<u>Lo</u>	c Code					
				MAT020		130.890263							
				116	12	4.2			· · · · · · · · · · · · · · · · · · ·				
					049 283	18.940263 107.75			124	283			

NCR: Y	es / No		1		WORK ORDER NON-	CON	IFORN	MANCE / UP!	DATE		,	
14011.	23 / 110									QA Closed:	Date:	
Work Orde	r·				DISPOSITION		·		AGAINST DE	PARTMENT	/PROCESS	
WORK Order					Rework	7		Skid-tube	Crosstube		Water Jet	Engineering
Part N	0.				Scrap	7	Machining Small I			Pro	Quality	
					Use-as-is	7	Thermoforming Finish			Rec/Stoi	re/Packaging	Other
NCR No.					Work Order Update]	Large Fab Composi				Supplier	
Root				Descri	ption of work order update	1 1	nitial	Act	tion	Sign &		<u> </u>
Cause	Date	Step	Qty		or Non-conformance	- 1	ief Eng		ription	Date	Verification	QC Inspector
Doc/Data						1					1	
Equip/Tooling											٠.	
Operator [! 								1	
Material [1	
Setup											1	
Other											·	
Process											i	
Supplier												
Training											ı	
Unapproved			<u> </u>								l	
						FAUL	T CATE	GORY				
Landin				_	General				Γ	1		٦, ،
-	Bending				Bend	\vdash	Grain		<u> </u>	Ovalized	.,	Pressure/Forced
-	Centre No	ot Concei	ntric to	o/s -	BOM/Route	-	Hardwa			Over/Under	-	Temperature/Cure Weld
}-	Cracks	a		-	Broken/Damaged	\vdash	•	on Incomplete		Part Incorre	-	Wrong Stock Pulled
-	Crushed/	Crimped.	·	-	Burrs	-	Mainte	ions Incomplete/	Unclear	Part Lost/M Part Moved		
-	Cuffs				Countamination	-	Mislabe		-	Positioned V	•	
-	Heat Trea		! Tubo		Countersink Cut Too Short	\vdash	Misread		 	Positioned v		Other
}	Inspection		eau	-	Drill Holes	\vdash	Offset	1	<u>L</u>	J. OWEL LOSS/	Juige i	Conci
}	Ripples in Torque W		 - -	<u> </u>	Drawing	-		Calibration				11075 A
·	Turning S		ŀ	'' 	Finish	-		Sequence				
	Truiting 3	CHUCITE	- 1	1	friinsii	1 1						

Outside Dimensions

__ Date: _

Wave/Twist in Tube

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

DART AEROSPACE LTD	Work Order:	97682
Description: Bracket	Part Number:	D3016-13
Inspection Dwg: D3016 Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

Drawing		Actual			Method of	-
Dimension	Tolerance	Dimension	Accept	Reject	Inspection	Comments
4.000	+/-0.010	4.008"	_		U	Jhmoi
2.983	+/-0.010	2.983	_		U	
2.401	+/-0.010	2.401"	<u> </u>		V	
2.250	+/-0.010	2.983° 2.401° 2.250°			V	
			-			
					<u> </u>	

Measured by: JM	Audited by: 5MD	Prototype Approval:	N/A
Date: 13-3-17	Date: 133-07	Date:	N/A

Rev	Date	Change	Revised by	Approved
Α	07.11.23	New Issue	KJ/EC/DD	7
		* ***	- [A Y	





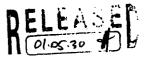
٥	ESIGN	'up	DRAWN BY	DART AEROSPACE HAWKESBURY, ONTARIO, CAI	
10	HECK	ED ,	APPROVED	DRAWING NO.	REV. A
		#	 	D3016	SHEET 1 OF 3
10	DATE		_1	TITLE	SCALE
	01.0	5.18		SEAT FRAME ASSEMBLY	NTS
T	Α		01.05.18	NEW ISSUE	

QTY	PART NUMBER	DESCRIPTION	MATERIAL
Х	D3016-041	SEAT FRAME ASSEMBLY	N/A
1	D3016-1	TUBE	AISI 4130N TUBE, Ø0.75 DIA x 0.049 WALL (M4130N-T0750W049)
2	D3016-3	TUBE	AISI 4130N TUBE, Ø0.75 DIA x 0.049 WALL (M4130N-T0750W049)
1	D3016-5	TUBE	AISI 4130N TUBE, Ø0.50 DIA x 0.049 WALL (M4130N-T0500W049)
2	D3016-7	TUBE	AISI 4130N TUBE, Ø0.50 DIA x 0.049 WALL (M4130N-T0500W049)
1	D3016-9	SADDLE	AISI 4130N TUBE, Ø1.00 DIA x 0.120 WALL (M4130N-T1000W120)
1	D3016-11	SADDLE	AISI 4130N TUBE, Ø1.00 DIA x 0.120 WALL (M4130N-T1000W120)
1	D3016-13	BRACKET	AISI 4130N SHEET, 18 GAUGE (M4130N-S049)
1	D3016-15	GUSSET	AISI 4130N SHEET, 18 GAUGE (M4130N-S049)
1	D3016-17	GUSSET	AISI 4130N SHEET, 18 GAUGE (M4130N-S049)
. 2	D3020-1	FITTING	N/A

NOTES

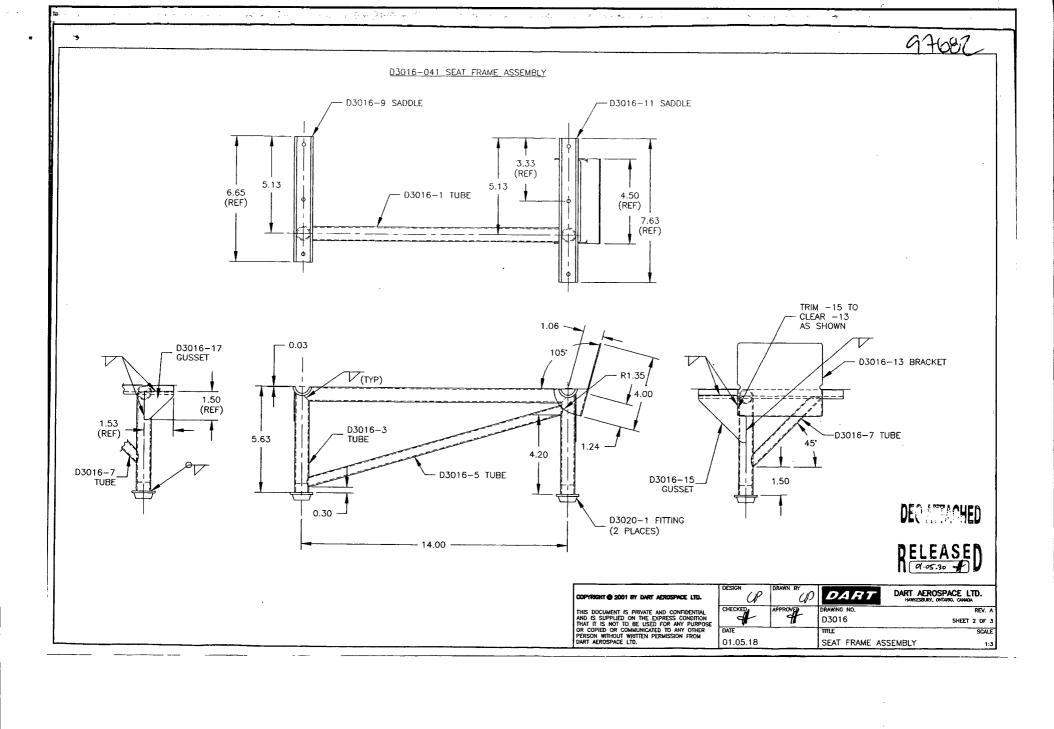
- 1) WELD PER DART QSI 004
- ON SHEET METAL PARTS, BREAK ALL UNMARKED CORNERS 0.020-0.040
- FINISH: POWDER COAT GREY SANDTEX (REF. 4.3.5.6) PER DART QSI 005 4.3
- ALL DIMENSIONS ARE IN INCHES
- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

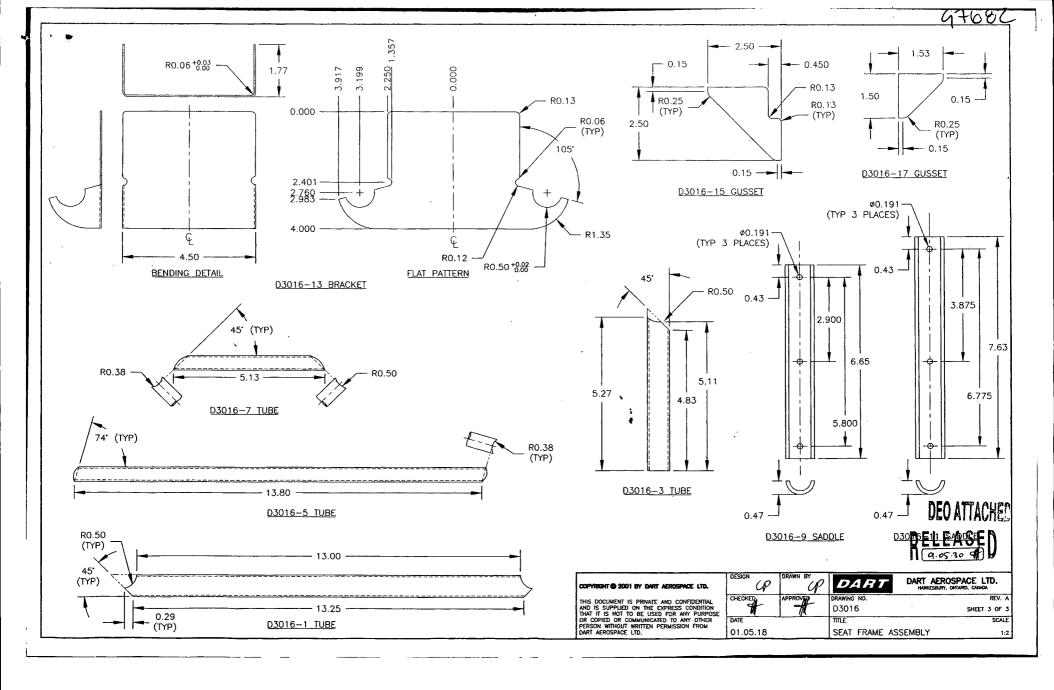
DEO ATTACHED



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97682

}	·····		···					1 10000
DRAWING NO	D. TITLE		REV. A	DART AE	ROSPACE LT	D.E.O. NO.	SHEET NO.	SCALE
D3016	SEAT FRAME ASSEMBLY				ERING ORDER		SHEET 1 OF 1	NTS
DRAWN	1	CHECKED (/	,	MFG. APPR.	E	APPROVED A	DE APPR.	
DATE	10.01.29	DATE 10:0	1.75	DATE	10,01.29	DATE 10.01.29	DATE 10.01-29	

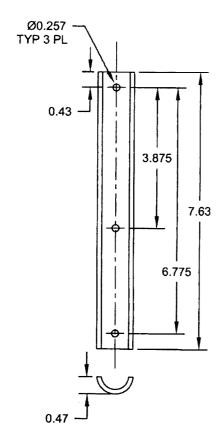
PURPOSE:

TO REVISE D3016-11 SADDLE'S HOLE SIZES

CHANGE:

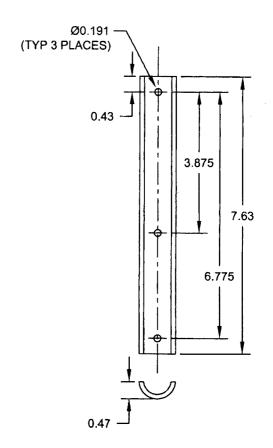
DETAIL D3016-11 SADDLE (SHEET 3): Ø0.257 TYP 3 PL WAS Ø0.191 (TYP 3 PLACES) AS SHOWN:

IS:



D3016-11 SADDLE

WAS:



D3016-11 SADDLE

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